

REMARKS/ARGUMENTS

Applicant acknowledges receipt of the Office Action dated April 10, 2008, in which the Examiner rejected claims 1-5 under 35 U.S.C. § 112, second paragraph; rejected claims 1-13 and 15 as obvious in view of Johnson (US 5004007) and Amani (US 4901798); and rejected claim 14 as obvious in view of Johnson, Amani and Carmody (US 4427071).

Applicants respectfully submit that the present amendments place the case in condition for allowance.

Rejection of claims 1-5 under 35 U.S.C. § 112, second paragraph

Claim 1 has been amended to recite an apparatus instead of a method. Applicants submit that the amendment cures this ground for rejection.

Rejection of claims 1-13 and 15 as obvious in view of Johnson and Amani

Claim 1 has been amended to incorporate the limitations of claim 2, which has been canceled. Similarly, claim 6 has been amended to incorporate the limitations of claim 7, which has been canceled. Because the limitations were present in the original claim set, they do not constitute new matter. Likewise, the recitation that the sleeve has an upstream end and a downstream end is apparent in the figures and does not constitute new matter.

Applicants respectfully submit that the rejection over Johnson and Amani is not supported as the references, even when taken together, do not teach all of the features of the present claims. Specifically, the references do not teach either a valve sleeve having a tapered section or a first seal disposed upstream of the valve seat.

Contrary to the Examiner's assertion, Johnson does not disclose that "the sleeve 39 has a tapered section where the outer diameter of the sleeve is gradually reduced." If, by this statement the Examiner refers to annular lip 45, Applicants respectfully disagree, inasmuch as lip 45 is not a gradually tapered section. Applicant has attempted to clarify this distinction by reciting that the tapered section is at the downstream end of the sleeve, but even without this added recitation, it would be clear

to someone skilled in the art that the lip or shoulder 45 that is taught by Johnson is not a tapered section and would not function in the manner of the claimed tapered section.

Second, actuator seat 46 is not a seal. As indicated by the Examiner, seals are well known in the art and it is equally well known that a seal is not formed unless it is taught that a seal is formed. Mere contact of two surfaces does not necessarily form a seal.

Third, because the outer surface of actuator 39 is not tapered between annular lip 45 and its lower end 41 the functionality disclosed and desired by the present invention cannot be provided by the Johnson apparatus. Specifically, the cylindrical outer surface of the downstream end of actuator 39 will not gradually engage anything as required by the claims. Instead, the cylindrical outer surface of the downstream end of actuator 39 will slide through the correspondingly cylindrical inner surface of the housing until lip 45 engages actuator seat 46 and comes to a stop.

Finally, because Johnson contains no mention of providing seals at the downstream end of the actuator, there would be no reason to provide a tapered surface on the outside of the actuator, as there would be no deformable member that could be engaged by a tapered surface.

Because there are elements missing from the combined teachings of the references, the references do not support the current obviousness rejection. Applicants therefore respectfully request that the Examiner reconsider and withdraw the rejection and allow the amended claims.

Rejection of claim 14 as obvious in view of Johnson, Amani and Carmody

Claim 14 is allowable for the reasons set out above with respect to claim 1.

Conclusion

Applicants respectfully submit that the amended claims are in condition for allowance and distinguishable over the art of record. Applicants therefore request that the amendments be entered and the application be allowed. In the event the Examiner has any questions or there are any issues with respect to the application, the Examiner

is respectfully requested to telephone the undersigned at the telephone number below prior to the issuance of any written action.

Respectfully submitted,

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